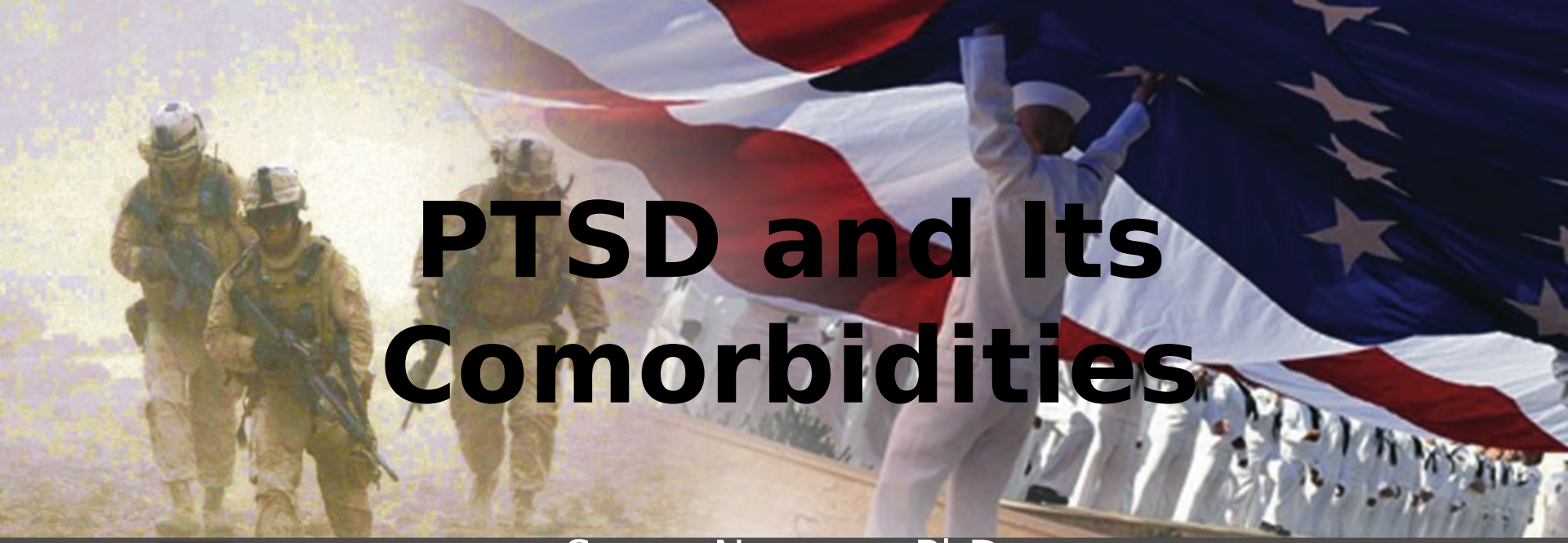


PTSD and Its Comorbidities

Sonya Norman, PhD
OEF/OIF PTSD Program Director, VASDHS
VA Center of Excellence for Stress and Mental Health (CESAMH)
UCSD Department of Psychiatry

Navy and Marine Corps Combat & Operational Stress Conference 2010:
"Taking Action, Measuring Results"

Naval Center COSC Combat & Operational Stress Control

VA Center of Excellence CESAMH Stress and Mental Health

NAVAL CENTER COSC
COMBAT & OPERATIONAL STRESS CONTROL

Agenda

- **Statistics**
- **Comorbidities**
  - **Substance Abuse and Dependence**
  - **Depression**
  - **Bipolar Disorder**
  - **Suicidality**
- **Assessment and Treatment Considerations**

PDHA and PDHRA Data

- **Army Personnel returning from Iraq**
  - **(Marines excluded)**
- **Assessed within 3 months and at 6 months**
- **For early identification of mental health related problems**
- **Not confidential**

Milliken, C.S. et al. JAMA 2007;298:2141-2148

Post-deployment Health Assessments - Active Duty

N = 56,350

	PDHA (< 3-months)	PDHRA (6-months)
+ Depression screen	2674 (4.7%)	5831 (10.3%)
+ PTSD screen	6634 (11.8%)	9424 (16.7%)
Suicidal Ideation	651 (1.2%)	353 (0.6%)
Interpersonal conflict	1975 (3.5%)	7893 (14%)
MH risk	9581 (17%)	15264 (27.1%)

Milliken, C.S. et al. JAMA 2007;298:2141-2148

Post-deployment Health Assessments National Guard and Reserves N = 31,885

	PDHA (< 3-months)	PDHRA (6-months)
+ Depression screen	940 (2.9%)	2338 (7%)
+ PTSD screen	4052 (12.07%)	7815 (24.5%)
Suicidal Ideation	2.83 (0.9%)	463 (1.5%)
Interpersonal conflict	1342 (4.2%)	6724 (21.1%)
MH risk	5588 (17.5%)	11333 (35.5%)

Milliken, C.S. et al. JAMA 2007;298:2141-2148

All VA Data

- **799,791 OEF/OIF Troops had separated from the military**
- **37% (299,585) had obtained VA care**
  - **(figures on Vet Centers and private care not known)**
- **Mental health disorders among 3 most common problems for which care was sought**
  - **Also musculoskeletal ailments and "symptoms, signs, and ill defined conditions"**

VA Office of Public Health and Environmental Hazards, 2008

All VA Data

- **40.1% had a mental health diagnosis!**

- **PTSD: 59,838 (20%)**
- **Depressive Disorders: 39,940 (13%)**
- **Anxiety: 31,481 (10%)**
- **Drug Abuse: 48,661 (16%)**
- **Alcohol/drug Dependence: 14,324 (5%)**

VHA Office of Public and Environmental Hazards, 2008

All VA Data

- **Youngest Veterans (18-24) at highest risk for PTSD diagnosis and most likely to access services**
- **Most receive their diagnosis from primary care!**
  - **Important window for engagement and referral**

Seal et al., 2007; Archives of Internal Medicine, 167:476-482.

OEF/OIF Mental Health Data: San Diego VA

- **Data collected 04 – 10/2006**
- **449 consecutively enrolled Veterans completed questionnaires at Members Services – 337 had all data**
- **Measures**
  - **Trauma – yes/no**
  - **Injury – yes/no**
  - **Davidson Trauma Scale (PTSD)**
  - **Alcohol Use Identification Test (AUDIT)**
  - **Drug Abuse Screening Test (DAST)**
  - **VA Depression screener**

Baker DG, Heppner P, Afari N, Nunnink S, Kilmer M, Simmons A, Harder L, Bosse B. Trauma exposure, branch of service and physical injury in relation to mental health among US veterans returning from Iraq and Afghanistan.

Mental Health Problems N = 339

	N (%)
PTSD	125 (36.9)
Substance Abuse	127 (37.5)
Depression	147 (43.4)
No MH Symptoms	121 (35.7)

Baker DG, Heppner P, Afari N, Nunnink S, Kilmer M, Simmons A, Harder L, Bosse B. Trauma exposure, branch of service and physical injury in relation to mental health am US veterans returning from Iraq and Afghanistan.

Comorbidity and Singular Symptoms N = 339

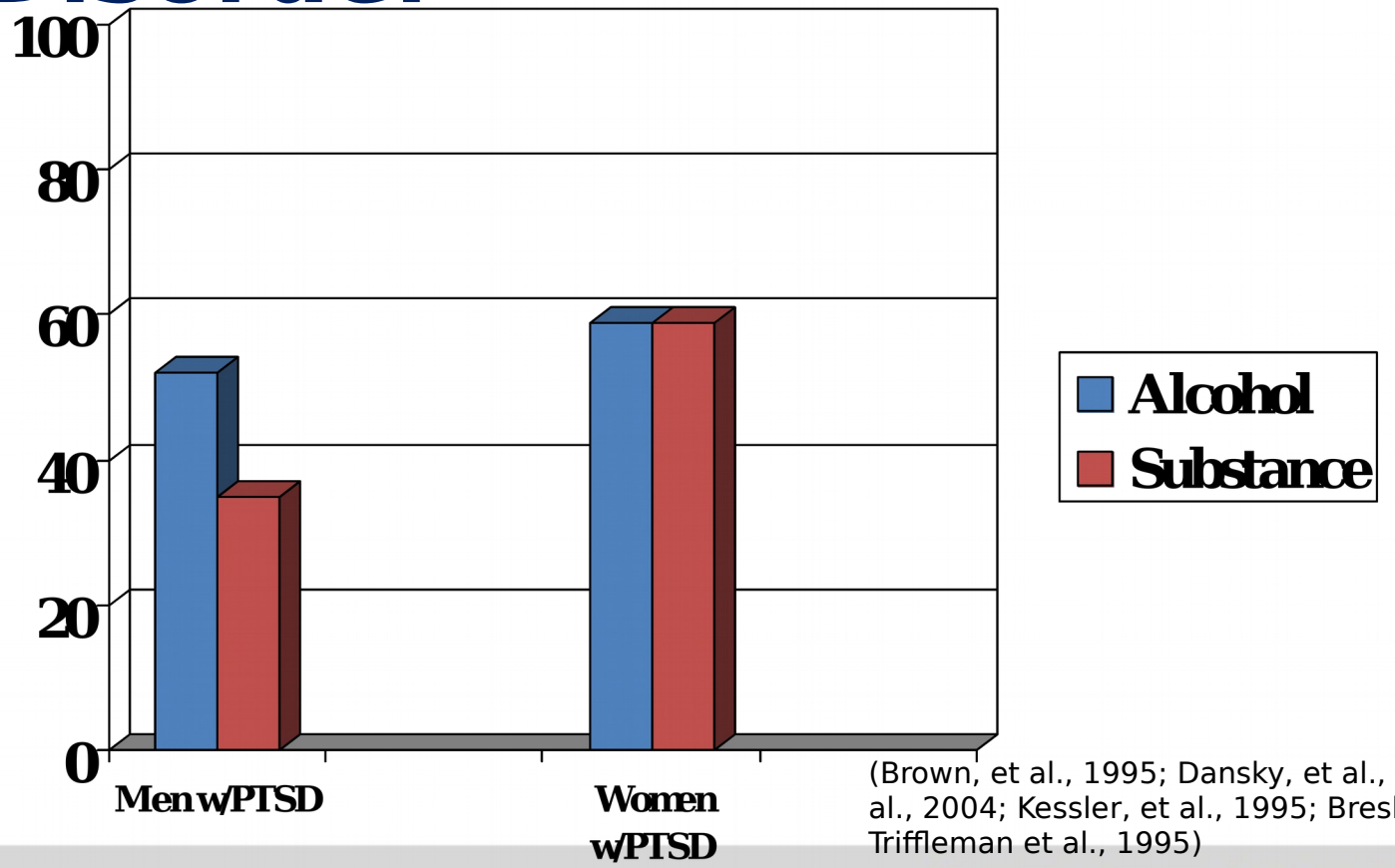
	N (%)
PTSD, Substance Abuse, Depression	50 (14.7)
PTSD, Substance Abuse	11 (3.2)
PTSD, Depression	48 (14.2)
Substance Abuse, Depression	22 (6.5)
PTSD Only	16 (4.7)
Substance Abuse Only	44 (13)
Depression Only	27 (8)

Baker DG, Heppner P, Afari N, Nunnink S, Kilmer M, Simmons A, Harder L, Bosse B. Trauma exposure, branch of service and physical injury in relation to mental health among US veterans returning from Iraq and Afghanistan.

NAVAL CENTER COSC
COMBAT & OPERATIONAL STRESS CONTROL

Comorbidities

PTSD and Substance Use Disorder



(Brown, et al., 1995; Dansky, et al., 1995), Farley, et al., 2004; Kessler, et al., 1995; Breslau, et al., 1997; Trifflemen et al., 1995)

PTSD and Substance Use Disorder

- **Co-morbidity**
  - **Genetic**
  - **Environmental Vulnerability**
    - **Self-medication hypothesis**
      - **Substance use to reduce PTSD distress**
      - **PTSD symptoms act as cue for relapse**
    - **Substance use beginning during trauma/prolonged stress**
      - **Partner violence**
      - **Child abuse**
      - **Combat/deployment**
    - **Substance use invites trauma exposure**

Norman, S. B., Inaba, R.K., Smith, T.L., Brown, S.A. (2008). Development of the PTSD-alcohol expectancy questionnaire. *Addictive Behaviors, 33(6),* 841-7.

Dually Diagnosed Have Worse:

- Treatment outcomes
- Axis I & II diagnoses
- Work functioning
- Legal problems
- Medical problems
- HIV risk
- Friend resources
- Suicidality
- Risk of future trauma

Goal

- **What is the cumulative effect of having both SUD and trauma exposure?**

Tate, S. R., Norman, S. B., McQuaid, J. R., & Brown, S. A. (2007). Health problems of substance-dependent veterans with and those without trauma history. *Journal of Substance Abuse Treatment, 33(1),* 25-32.

Hypothesis

SUD-ONLY < SUD-Trauma < SUD-PTSD

- Chronic health problems

Participants

- **Males admitted to VA San Diego Alcohol and Drug Treatment or Dual Diagnosis Treatment**

- **<u>Inclusion criteria</u>**

  Current alcohol, stimulant, and/or marijuana dependence with recent use (90 days)

- **<u>Exclusion criteria</u>**

  IV opiate dependence, psychotic disorders

NAVAL CENTER COSC
COMBAT & OPERATIONAL STRESS CONTROL

Method

- **Baseline interview**
  - **Diagnostic interview (SSAGA)**
  - **Recent Substance use (Timeline Followback)**
- **At baseline and quarterly**
  - **Self-ratings of health status**
  - **# of medical treatment contacts**
  - **Psychiatric Epidemiology Research Interview (PERI) – health related items**

Results: Sample Characteristics

NAVAL CENTER COSC
COMBAT & OPERATIONAL STRESS CONTROL

N = 121 All male veterans
- SUD-only n = 55
- SUD-trauma n = 34
- SUD-PTSD n = 32

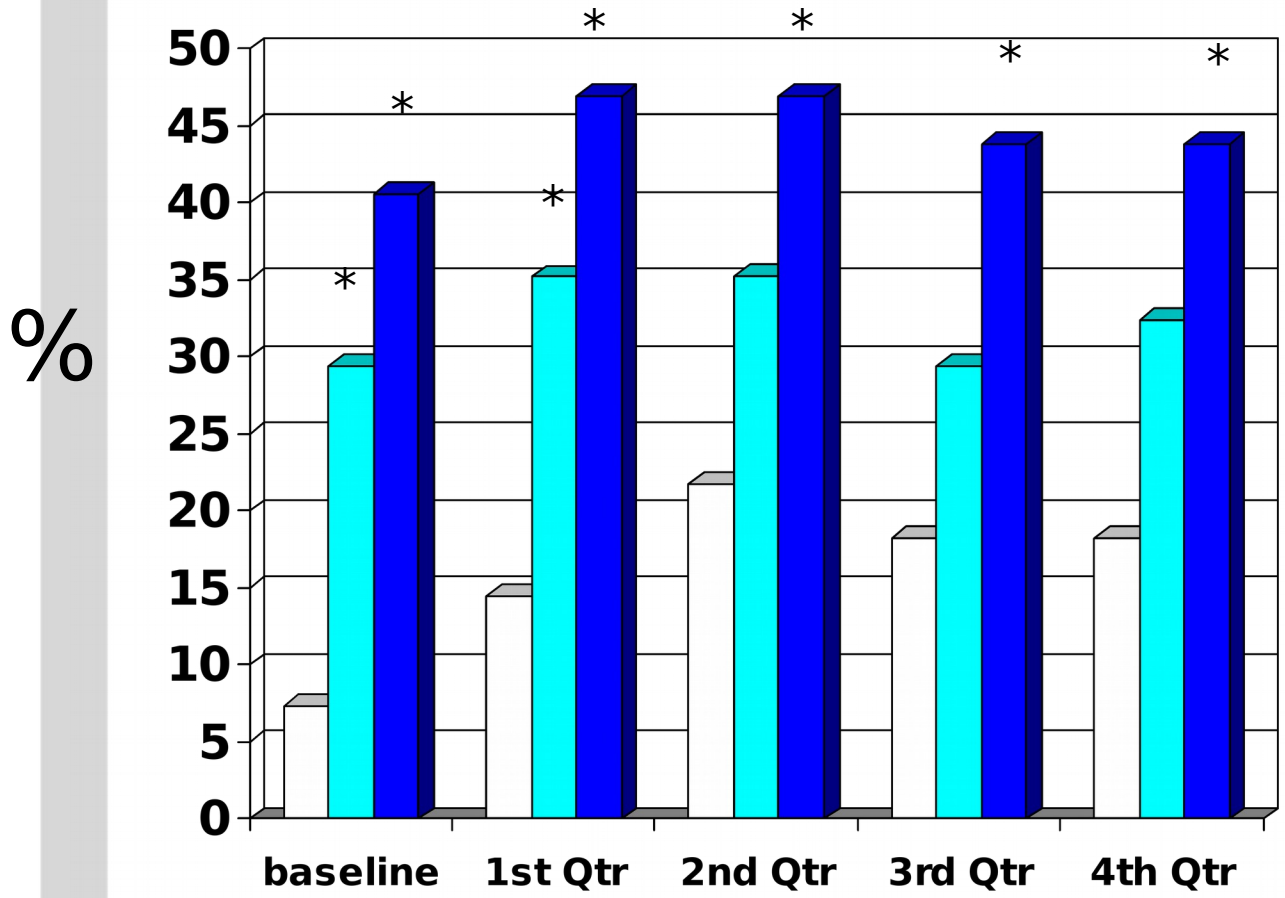
Age M = 44 years
Married 17%
Ethnicity
- Caucasian 57%
- AA 21%
- Hispanic 15%

Education M = 13 years
Currently employed 13%
Substance Dependence
- Alcohol 83%
- Cannabis 17%
- Stimulant 35%

Substance use characteristics at follow-up

	SUD-Only	SUD-Trauma	SUD-PTSD
% Abstinent	33%	35%	47%
Days abstinent 146 (117)	115 (109)	96 (75)	
Days drinking/using (9.3)	9.4 (9.7)	6.4 (9.9)	6.3
Drinks/drinking day (9.0)	6.1 (6.7)	5.8 (5.2)	10.1
Initial Substance(s) Used:			
Alcohol	87%	73%	77%
Marijuana	8%	14%	18%
Stimulants	27%	14%	18%

Chronic health difficulties



Discussion

SUD-ONLY $<$ SUD-Trauma $\leq$ SUD-PTSD

- Chronic health problems

- **Impact of PTSD on SUD treatment**
  - **Relapse is quicker**
  - **PTSD is a significant predictor of relapse**
  - **Remission of PTSD is associated with better SUD outcomes but remission from substances is NOT associated with improved PTSD**
  - **Patients with PTSD benefit less from SUD treatment than pts w/o PTSD**

PTSD and Depression

- **Most common comorbidity – up to 56%**
- **Is this the same disorder?**
- **Depression generally improves in tandem with PTSD symptoms**
- **PTSD should not be ignored in depression patients**

NAVAL CENTER COSC COMBAT & OPERATIONAL STRESS CONTROL

PTSD and Bipolar Disorder

- **Prevalence: 16% among bipolar patients**
- **PTSD in bipolar pts associated with:**
  - **Worse treatment outcomes**
  - **Lower likelihood to recover**
  - **Increased likelihood of rapid cycling**
  - **Increased risk of suicide attempts**
  - **Worse quality of life**
  - **Higher rates of substance use disorder**

Quarantini, L. C., Miranda-Scippa, A., Nery-Fernandes, F., Andrade-Nascimento, M., Galvao-de-Almeida, A., Guimaraes, J. L., . . . , Koenen, K. C (2009). The impact of comorbid posttraumatic stress disorder on bipolar disorder patients. *Journal of Affective Disorders, 123*, 71-76. doi:10.1016/j.jad.2009.08.005

Assion, H., Brune, N., Schmidt, N., Aubel, T., Edel, M., Basilowski, M., Frommberger, U. (2009). Trauma exposure and post-traumatic stress disorder in bipolar disorder. *Social Psychiatry and Psychiatric Epidemiology, 44(12),* 1041-1049.doi:10.1016/j.jad.2009.08.005

Steinbuchel, P., Wilens, T., Adamson, J., Sqambati, S. (2009). Posttraumatic stress disorder and substance use disorder in adolescent bipolar disorder. *Bipolar Disorders, 11(2),* 198-204.

Risks of Comorbidity - Suicidality

- **Study of 202 OEF/OIF Veterans with PTSD**
  - **Risk for suicide ideation 5.7x greater in those with 2 or more comorbid disorders!**
- **65 PTSD outpatients w/ and w/o depressive/bipolar disorder**
  - **Even subthreshold depressive/hypomanic sx increased PTSD risk**
- **Higher rate of attempts but not completion**

Dell'osso, L., Carmassi, C., Rucci, P., Ciaparelli, A., Paggini, R., Ramacciotti, C. E.,, Marazziti, D. (2009). *CNS Spectr, 14(5),* 262-?

Jakupcak, M., Cook, J., Imel, Z., Fontana, A., Rosenheck, R., McFall, M (2009). Posttraumatic stress disorder as a risk factor for suicidal ideation in Iraq and Afghanistan war veterans. *Journal of Traumatic Stress, 22(4),* 303-306.

NAVAL CENTER COSC COMBAT & OPERATIONAL STRESS CONTROL

Assessment Recommendations

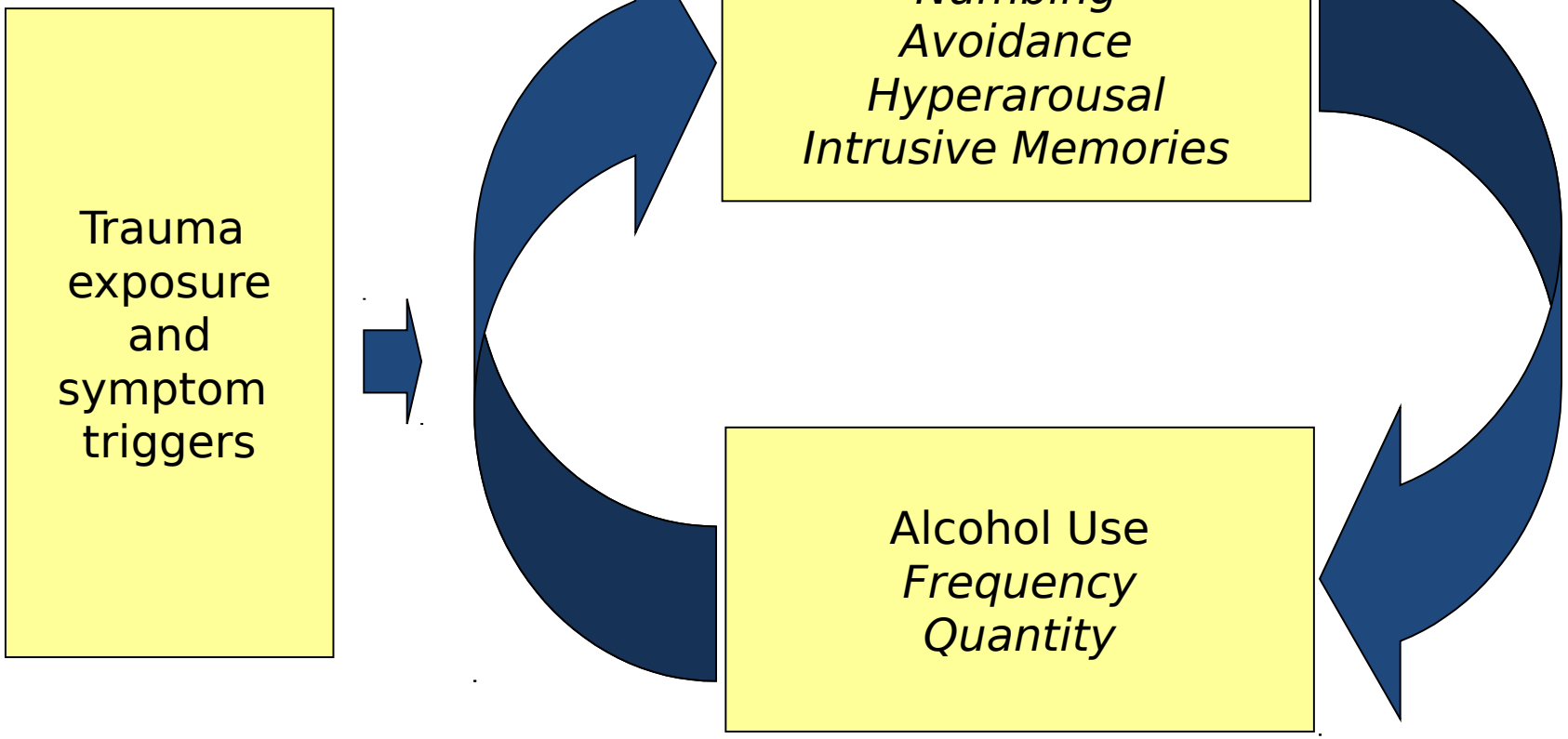
- **ASSESS!**
- **What is feasible for your setting?**
  - **Self-report?**
  - **Interview?**

NAVAL CENTER COSC COMBAT & OPERATIONAL STRESS CONTROL

Treatment Recommendations

- **Which to treat first?**
  - **Safety**
  - **Stabilize**
  - **Most impairing**
  - **Underlying problem**

Integrated vs. Sequential Treatment?



Integrated Treatment v. Sequential

- **Integrate when possible**
- **Trauma-Informed Treatment**
- **Coping skills/emotional regulation – always useful**
- **Move on to evidence-based PTSD treatment once stabilized**

NAVAL CENTER COSC
COMBAT & OPERATIONAL STRESS CONTROL

Evidence-Based Practices Roll-Out

- **Prolonged Exposure Therapy (PTSD)**
- **Cognitive Processing Therapy (PTSD)**
- **Acceptance and Commitment Therapy (depression)**
- **Cognitive Behavioral Therapy (depression)**

NAVAL CENTER COSC
COMBAT & OPERATIONAL STRESS CONTROL

Advantages of Evidence Based Treatment

- **Works for most individuals**
- **Efficient treatment, often reducing symptoms significantly by 6-12 weeks**
- **Learning-based treatments, benefits appear to be long-lasting**

Examples of Integrated Treatment

- **Cognitive Processing Therapy for bipolar**
- **Prolonged Exposure + Integrated CBT**
- **Seeking Safety?**

Otto MW, Perlman CA, Wernicke R, Reese HE, Bauer MS, Pollack MH. Posttraumatic stress disorder in patients with bipolar disorder: a review of prevalence, correlates, and treatment strategies.
Bipolar Disord 2004: 6: 470–479.

Future Directions

- More work specific to OEF/OIF
- Better understanding of etiology, common risk factors
- Evidence based integrated treatments (pharmacotherapy and psychotherapy)
- Risks of more disorders (ADHD)
- Do diagnoses matter?

Otto MW, Perlman CA, Wernicke R, Reese HE, Bauer MS, Pollack MH. Posttraumatic stress disorder in patients with bipolar disorder: a review of prevalence, correlates, and treatment strategies.
Bipolar Disord 2004: 6: 470–479.